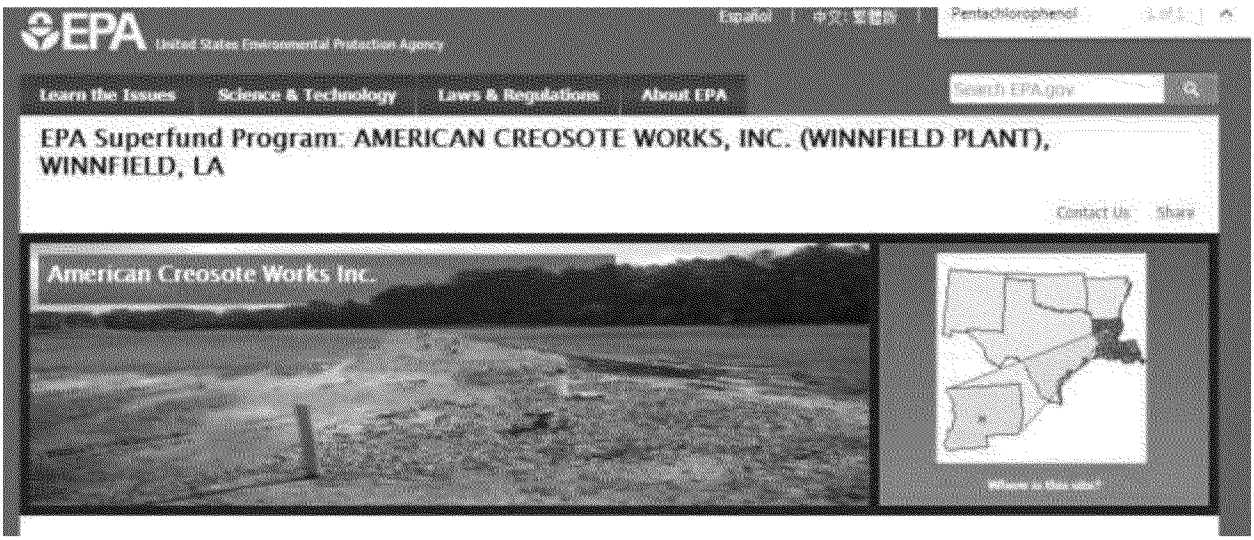
2016 PentaChloroPhenol Sites and Issues _ Update

EPA Superfund Program: AMERICAN CREOSOTE WORKS, INC



Current Status

On September 19, 2016, EPA signed the Record of Decision (ROD) Amendment for the American Creosote Works Inc. site. The ROD Amendment identifies the revised remedy which changes the method to address the source contaminants prescribed in the original 1993 remedy. EPA will be initiating a Remedial Design which develops the plans necessary to implement the revised remedy.

Site Background

The 34 -acre American Creosote Works, Inc. (Winnf ield Plant) site is located in Winnfield, Louisiana. Wood treatment took place on site from 1901 to 1979. The treatment process used creosote and pentachlorophenol (PCP). After the site owner, Dickerson Lumber Company, declared bankruptcy, Stallworth Timbe r Company purchased the property and wood treatment operations resumed in 1981 only to abandon the site in 1985. Spills and treatment process upsets contaminated soil and ground water. Remediaion at the site has been on-going since 1994.

National Priorities Listing (NPL) History

Site HRS Score: 50.70
Proposed Date: 2/07/92

Final Date: 10/14/92
NPL Update: No. 12

EPA settles with WestRock CP for $4.6 million

https://www.epa.gov/newsreleases/epa-settles-westrock-cp-46-million-reimburse-cleanup-costs-former-wood-treating-plant

For Immediate Release: November 3, 2016

EPA settles with WestRock CP for $4.6 million to reimburse cleanup costs at former wood treating plant

SAN FRANCISCO – The U.S. Environmental Protection Agency has settled with WestRock CP, LLC, which will pay $1.6 million in cash plus shares of stock valued at nearly $3 million as partial reimbursement for a hazardous waste cleanup near Prescott, Ariz.

The site is a former wood treating plant located on the **Yavapai-Prescott Indian Tribe** reservation, and cleaned up by the EPA using its authority under the Comprehensive Environmental Response, Compensation and Liability Act (the Superfund law). In 2012, EPA discovered significant amounts of arsenic and pentachlorophenol-contaminated material at the abandoned site. The Agency spent $6.1 million removing 4,209 tons of contaminated soil during a two-month long cleanup.

“This unique settlement was structured to allow the Agency to receive corporate shares instead of a full cash payment,” said Enrique Manzanilla, Director of the Superfund Program for the EPA’s Pacific Southwest Office. “We are pleased to recover the majority of the taxpayer -provided funds spent on the environmental cleanup on tribal lands.”

The shares of stock being transferred to the Agency include 56,064 shares in WestRock CP, LLC’s parent company, WestRock Company, an d 9,344 shares of a newly established spin-off company, Ingevity Corporation. The EPA will sell the stock once the settlement is finalized in federal District Court. The combined stock current value is $2,998,406.

Southwest Forest Industries Inc. operate d the wood treating plant from 1961 -1985, and a successor company, Smurit -Stone Container Enterprises, Inc. went bankrupt, leaving the cleanup obligations with the current corporate successor, Westrock, CP LLC, a manufacturer of paperboard and paper-based packaging.

Pentachlorophenol, an industrial wood preservative, is extremely toxic and can cause neurological, blood, and liver effects, and eye irritation in the short term and long term

impacts on the respiratory tract, blood, kidney, liver, immune system , eyes, nose, and skin. Arsenic, used to formulate a common wood preservative, can cause gastrointestinal effects, anemia, peripheral neuropathy, skin lesions, hyperpigmentation, and liver or kidney damage in humans.

The consent decree is subject to a 30 -day public comment period. To view the consent decree or to submit comments, please visit: https://www.justice.gov/enrd/consent - decree/us-v-westrock-cp-llc

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Location: Winnfield, Winn Parish, Louisiana. Site covers approximately 34 acres at 1006 Front Street. Primarily residential area American Creosote Works Inc. 4 EPA Publication Date: September 17, 2015

Population: Winnfield, LA (Population 7,000). An estimated 5,700 people live within a mile of the site.

Utility poles installed in a Kenmore wetland.

October – 2016 (WATCH THIS VIDEO)

http://www.king5.com/mb/tech/science/environment/pse-installed-toxic-utility-poles-in-kenmore-wetland/346507066

WATCH THIS VIDEO ON THIS SITE

The Washington Department of Fish and Wildlife says Puget Sound Energy needs to fix toxic utility poles installed in a Kenmore wetland.

The poles are right next to Marilyn Knutson's home, where she keeps her horses in a fenced in pasture.

Knutson says she alerted WDFW about the new transmission line, which violates PSE's own permit. The wood is treated with a carcino genic preservative called penta. It's not allowed in wetlands like the one around Swamp Creek.

"I worry about them rubbing up against the poles, getting it on their fur. They lick themselves," she said.

Knutson has lived near the wetland for 50 years. She is heartbroken about the latest challenge to her efforts to protect it.

"This wetland can make me cry," she said. "I do love my wetland. I love everything about it."

PSE claims the pole installation was a mistake, saying crews didn't realize they were crossing a wetland.

KING 5 received the following statement from PSE:

"We recently rebuilt our Moorlands -Vitulli transmission line that serves the Bothell and Kenmore neighborhoods. It's part of our continuing efforts to provide safe, reliable power to the are a. During that work, we identified that poles treated with penta (pentachlorophenol) were placed in the wetlands in that corridor. The bases of the poles are in casings in the soil which provide stability and a barrier between the groundwater and the pole. However, since the casings end at top of the soil line, we immediately began working on solutions to extend the water barrier up the poles. That remediation work is underway with a variety of options being discussed."

Knutson doesn't believe PSE knew abou t the issue until her requests for information prompted action from WDFW. According to PSE, officials realized the error soon after installation.

In a letter sent from WDFW to PSE, Assistant Regional Habitat Program Manager Stewart Reinbold writes that he wants a response from PSE by November 4:

"Also as I have stated in my communications with Mr. Padvorac if PSE had asked to use Penta treated piles WDFW would have tried to work out an encapsulation situation. This would have included installation of a steel potentially plastic pile around the treated wood with a sealed concrete bottom and the surrounding piling extending up the Penta pile to above the 100 yr flood elevation. However at this point the Penta treated piles were not permitted and do not encapsu late the treated piles. Further the voicemail response from Mr. Padvorac stating the 5/8 crush rock surround part of the pile will stop any leaching is not correct."

Bill Lider and the Sno -KING watershed council want the poles removed. The chemical they're leeching can hurt salmon and other wildlife, then move up the food chain to humans.

"They obviously weren't paying attention to the requirements of their permit which told them not to use penta. Whether it was intentional or accidental is irrelevant," Lider said.

PSE says the new line provides safe and reliable power, and they'll find a way to provide a safe habitat for wildlife as well.

In the letter, Reinbold gives PSE until Friday to actively work with WDFW toward a resolution or else enforcement action could follow. However, Region 4 Habitat Program Manager Brendan Brokes tells KING 5:

"The Department of Fish and Wildlife is committed to working with PSE, as with all of our customers, to protect fish life and help them come into compliance with their Hydraulic Project Approval. We have long history of working PSE and this incident is an anomaly. We feel confident that PSE we will be able to work with them to resolve the concern. I'm still seeking information regarding this specific situation, but involvi ng our enforcement division is typically reserved for the most egregious violations. At this point we have no reason to believe we will need their assistance."

PSE may have to wait until after salmon spawning season and winter to deal with the poles.

Post & Lumber Preserving Company

Company can't pay for cleanup !!

State Road 12 & Post Plant Road
Quincy, Florida
County: Gadsden
District: Northwest
Site Lead: Waste Cleanup Program
Approved for Cleanup: July 29, 1996
HWC # 107
Site Description and History

The Post & Lumber Preserving Company, Inc. is located at the northeast corner of State Road (SR) 12 and Post Plant Road, approximately 3.5 miles east of Quincy, Gadsden County, Florida in Township 02N, Range 03W, Section 11 at 30° 35′ 34.7700″ N, 84° 30′ 38.3800″ W. The area is rural residential with some light industry. The northeast and eastern portions of the site are bordered by undeveloped land covered by thick brush and trees. The former family -owned wood treating facility comprises approximately 18 acres including an office/storage building, the former wood treating area, and pole barn storage shed. The facility produced pressure treated posts and lumber using both Wolmanizing salts (copper, chromium & arsenic [CCA]) and pentachlorophenol (PCP), beginning in 1948. The CCA treatment consisted of a 1% solution of Wolman salts (fluoride, hexavalent chromium [Cr+6], arsenic, dimethyl phenol and copper). The PCP wood preservative consisted of a 5 – 7% solution of PCP mixed with diesel fuel and/or water. Both PCP and CCA onsite waste disposal activities are documented. Waste sludge from the PC P and CCA wastewater sumps was placed into an onsite sludge pit

(8 ft × 30 ft × 4 ft deep). Sludge, process wastewater, and surface water runoff from the site were also directed to a former onsite surface impoundment.

The facility is currently inactive and no longer conducts any wood treating operations. The former process area is littered with demolition debris from the razing of the plant. Black and green stained soil is evident surrounding the former treatment area. Several wooden structures remain onsite.

Two corrective actions were completed onsite prior to adoption for State funded cleanup. A reported 12 to 15 thousand cubic yards of contaminated soils and sludges from the original surface impoundment were addresse d by the facility owner/operator through the RCRA closure permit, with the installation of an underlying clay liner and synthetic cover to contain the consolidated materials. In May 1996, the EPA Emergency Response and Removal Branch completed excavation a nd treatment of additional onsite soils, which exceeded EPA's emergency soil removal criteria. Excavated soils were treated onsite by solidification/ stabilization. Treated soils included those in the former process and dumping pit areas where excavation r eached 6 to 8 feet below land surface and elsewhere onsite where soils were excavated to 2 feet below land surface.

Threat

Groundwater contamination in the surficial aquifer by PCP and arsenic has been confirmed. Area residents obtain potable water from th e underlying Floridan Aquifer. A deep potable supply well is located at the southeast corner of the former process area. Periodic sampling of the deeper onsite potable supply well by DEP and offsite area private wells by the Florida Department of Health (D OH, formerly HRS) continues to indicate that the underlying Floridan Aquifer has not been

affected but the potential for contamination remains a concern. Dioxin, arsenic and PCP are present in onsite soils at co ncentrations above soil cleanup target levels for leachability to groundwater and direct contact based on both commercial and residential land use. DEP warning signs have been placed on the fence surrounding the former facility property, indicating the presence of contaminated soil and water.

To date, DEP has focused its soil cleanup efforts primarily on removal of contaminated soils from offsite properties where arsenic and dioxin have been confirmed at concentrations above residential soil cleanup target levels and the potential for exposure exists.

Response Strategy and Status (July 2016)

The site was approved for State funded cleanup in July 1996 after the DEP District office and the Office of General Counsel determined that the site owner was unable to perform site cleanup. Additional contamination assessment work was performed by DEP from July 1997 to January 1998 to determine the extent of groundwater and soil contamination exceeding allowable concentrations that are protective of current and future land use. Assessment included the installation and sampling of 7 new and three existing surficial aquifer monitoring wells, the collection of 209 soil samples both onsite and offsite, and sediment and surface water sampling.

The Contamination Assessment Repo rt (CAR) was approved in June 1998. Data collected during the assessment indicates that arsenic contamination in soils above levels acceptable for residential land use is widespread onsite. PCP contamination in soils above residential cleanup goals is also present, but more localized onsite. Dioxin was observed in 7 out of 10 onsite soil samples at levels slightly above the Department's recommended allowable concentration of 7 ppt under a future residential land use scenario.

Both PCP and arsenic were detected in onsite groundwater in the surficial aquifer above State drinking water standards. Private well sampling by the Department of Health in 1997 did not detect site related contaminants in private wells on properties located immediately south of the site . No Floridan Aquifer contamination exceeding Drinking Water standards was observed.

The installation of additional monitoring wells and soil sampling was completed and a CAR Addendum was submitted in November 1998. The Addendum results confirmed the presence of soils and sediments immediately south of SR 12 containing arsenic and PCP above soil cleanup target levels for unrestricted residential use. Surficial aquifer contamination was not observed to extend offsite to the south or east. A Remedial Alternatives Evaluation Report (RAE) was submitted in October 1998. Treatability testing of potential technologies, including chemical oxidation and phyto -remediation technologies, was completed in June 2001. A Revised RAE Report was received in March 2002 that in corporated an evaluation of the treatability testing results and additional remedial alternatives which might be used to cleanup both the on - and offsite soil contamination and groundwater contamination.

The RAE estimated that 47,000 cubic yards of soils w ere present onsite with contaminant levels above that acceptable for unrestricted land use. The projected cost of soil cleanup determined in

the RAE ranged from $1.5 million to $13.88 million, depending upon the selected technology and land use scenario. Remediation of contaminated groundwater to State drinking water standards was projected to cost $2 million.

An Interim Remedial Measure (IRM) was selected by DEP in September 1999 to address the offsite soil and sediment contamination located south of SR 12. The selected IRM consisted of excavation of the offsite soils contaminated with arsenic and/or dioxin above DEP soil cleanup target levels (SCTL) for residential use, with offsite disposal at a permitted landfill. Additional offsite soil sampling and removal of contaminated soils south of SR 12 was conducted in phases, with approximately 54,221 tons of contaminated soils removed as of December 2006 (Phases I-IV).

Concurrently with the offsite removal activities, DEP conducted onsite and offsite soil and groundwater sampling including installation of additional monitoring wells north of SR 12. This data was necessary in order to support selection of a final onsite remedy and determine the need for offsite removal actions north of SR 12. The resulting data confirmed the presence of arsenic and dioxin soil contamination on properties north, east and west of the site. Groundwater contamination primarily by arsenic and pentachlorophenol was confirmed in the shallow aquifer onsite and to a limited degree offsite to the north, east, and southeast. Notices of "offsite contamination" to all affected property owners for both soil and groundwater were completed by DEP in 2005 and amended in 2006. Additional offsite monitoring wells were installed in October, 2010 and sampled along with the existing monitoring wells. A Groundwater Monitoring Report was submitted to DEP in November 2010. Groundwater monitoring is ongoing to ensure that existing groundwater contamination is not migrating.

In April 2007, DEP initiated soil removal activities on several properties west of the site and Post Plant Road. Approximately 10,112 tons of contaminated soils were excavated from offsite properties northwest of SR 12 (Phases V and VI) with transport and disposal at an offsite permitted disposal facility in 2007/2008.

Phase VII removal activities were initiated in March 2009 to address approximately 11,700 tons of contaminated soils located on offsite adjacent properties northwest and immediately east of the former Post and Lumber facility property. Removal activities were discontinued May 1, 2009 due to frequent rains and flooding resulting in poor field conditions and significant impacts to the excavation schedule. Properties where excavation and backfill had been completed were restored with sod and/or seed. DEP remobilized in October and completed removal and restoration activities for the three properties northwest of the Post & Lumber site in late November 2009. DEP and its contractor mobilized in June 2010 and completed the remaining Phase VII removal and restoration activities on the two properties located immediately east of the site in October 2010.

In July 2011, DEP and its contractor installed a system of low earthen berms and erosion control matting as an onsite interim action to control surface runoff and prevent erosion and transport of onsite contaminated soils into the wetland and creek located on the eastern end of the former facility property.

Post & Lumber Preserving Company

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In March 2012, the DEP contractor mobilized to the site to complete a second onsite interim action. Trees and other vegetation were cleared from the surface of the former onsite RCRA closure unit and a thick synthetic cover was installed on top of the stockpile to secure the underling contaminated soils. Replacement of the original cover will prevent percolation of rainwater into the stockpile resulting in leaching of contaminants from that area into the groundwater.

Annual 2013 groundwater monitori ng results along with onsite petroleum assessment results were provided in reports to DEP in October 2013. The 2013 monitoring results confirmed that groundwater contamination in the surficial aquifer, consisting of arsenic, pentachlorophenol (PCP) and PCP daughter products, remains primarily on the former facility property with limited offsite migration. The presence of PCP daughter products suggests that PCP degradation is occurring at the site. The annual event also included installation and sampling of temporary monitoring wells for petroleum constituents along with soil borings to determine if petroleum sources are present in former tank areas. Petroleum related compounds including benzene, MTBE and TRPH were identified above GCTLs in one or more tempor ary monitoring wells installed onsite. One or more soil samples contained petroleum constituents above default leachability criteria. Additional petroleum source delineation was recommended by the contractor. Additional permanent monitoring wells were inst alled as part of the subsequent annual site groundwater monitoring event as documented in the March 31, 2015 Annual Groundwater Monitoring Report.

Additional soil sampling was conducted in 2011 on the former facility property to further characterize site-related contamination and support selection of the final onsite remedy. The resulting onsite data confirmed concentrations of arsenic and dioxin, over the majority of the site, at levels significantly above commercial cleanup target levels. Further onsite and offsite sampling was completed in June 2013 to supplement existing data and included sediment sampling in wetlands located both onsite and immediately north of the former facility property. Results were provided in a draft Data Summary Report submitted to DEP in November 2013.

A draft Cost Estimate of Presumptive Remedial Options report was provided to DEP by the contractor in March 2014. A revised draft report was submitted in December 2014.

In the report, potential onsite remedial technologies are eval uated and remedial cost estimates developed to support DEP selection of an onsite soil and wetland sediment remedy. An estimated 77,000 cubic yards of contaminated soils and sediments on the former Post & Lumber facility property contain contaminants above DEP commercial soil cleanup target levels and sediment quality guidelines. The final March 10, 2015 summary table of Presumptive Remedial Options Cost Estimates was provided to DEP which identified 6 onsite remedial options with supporting design assumpti ons, and cost estimates for each remedial alternative to address onsite soil and sediment contamination. The summary table also provided cost estimates to address the remaining soil and sediment contamination on offsite properties based on excavation of an estimated 19,000 cubic yards.

Schedule

To date, approximately 74,000 tons of contaminated soils have been removed from surrounding offsite residential properties. Offsite sampling is conducted using a phased approach to support

design and implementation of soil and sediment removal activities where DEP cleanup target levels are exceeded.

Site data indicates that offsite contaminated soils and wetland areas still need to be addressed on several properties north, northeast and southwest of the Post & Lumber site as well as properties to the east of the site abutting the creek leading to Little River where contaminated sediment has been identified. The estimated volume of contaminated soils and sediment remaining to be addressed is 96,000 cubic yards. DEP has reached out to the federal Environmental Protection Agency (EPA) for assistance in addressing the remaining onsite and offsite contamination.

Annual groundwater monitoring is ongoing.